

Fig. 1

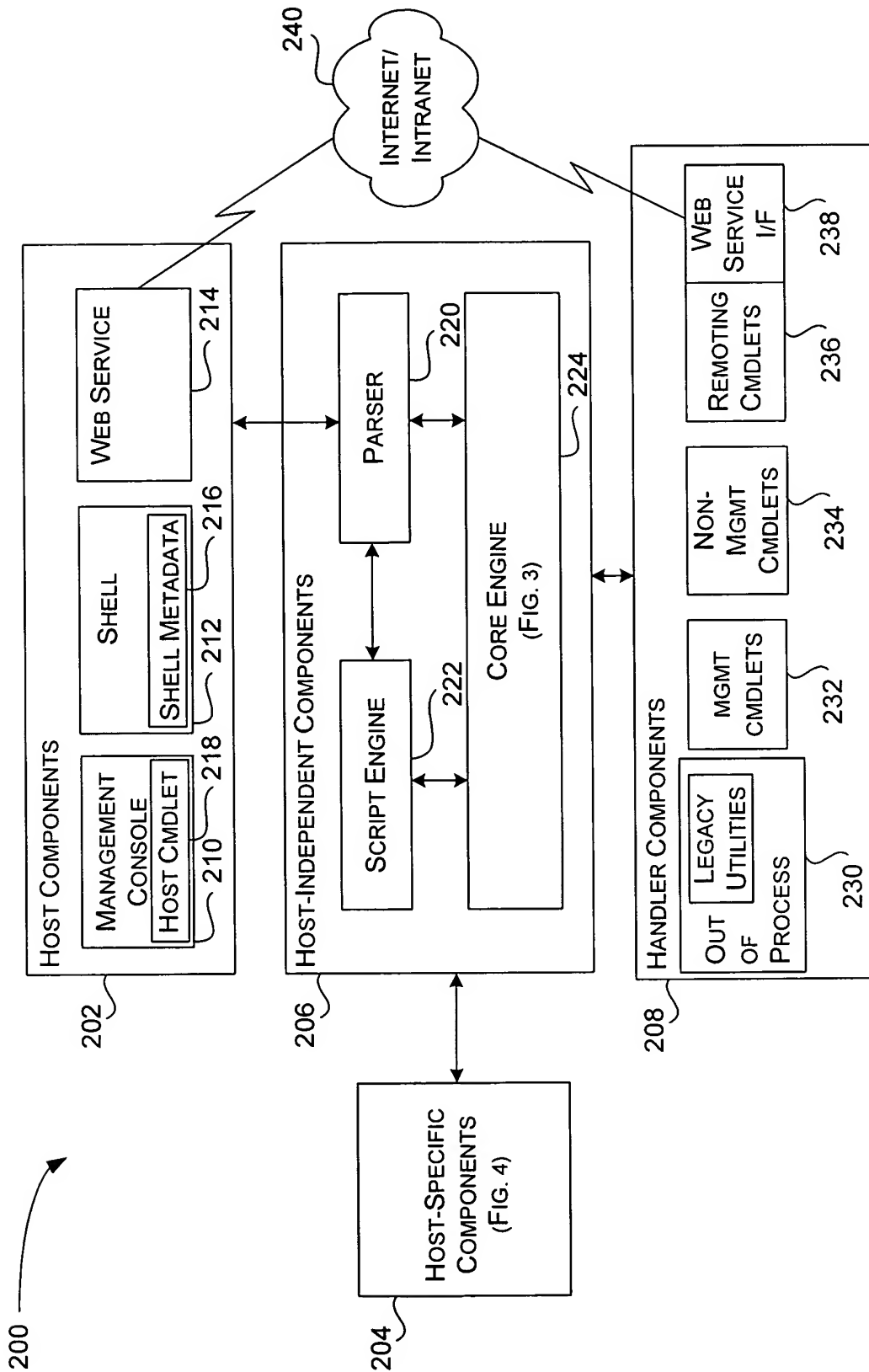


Fig. 2

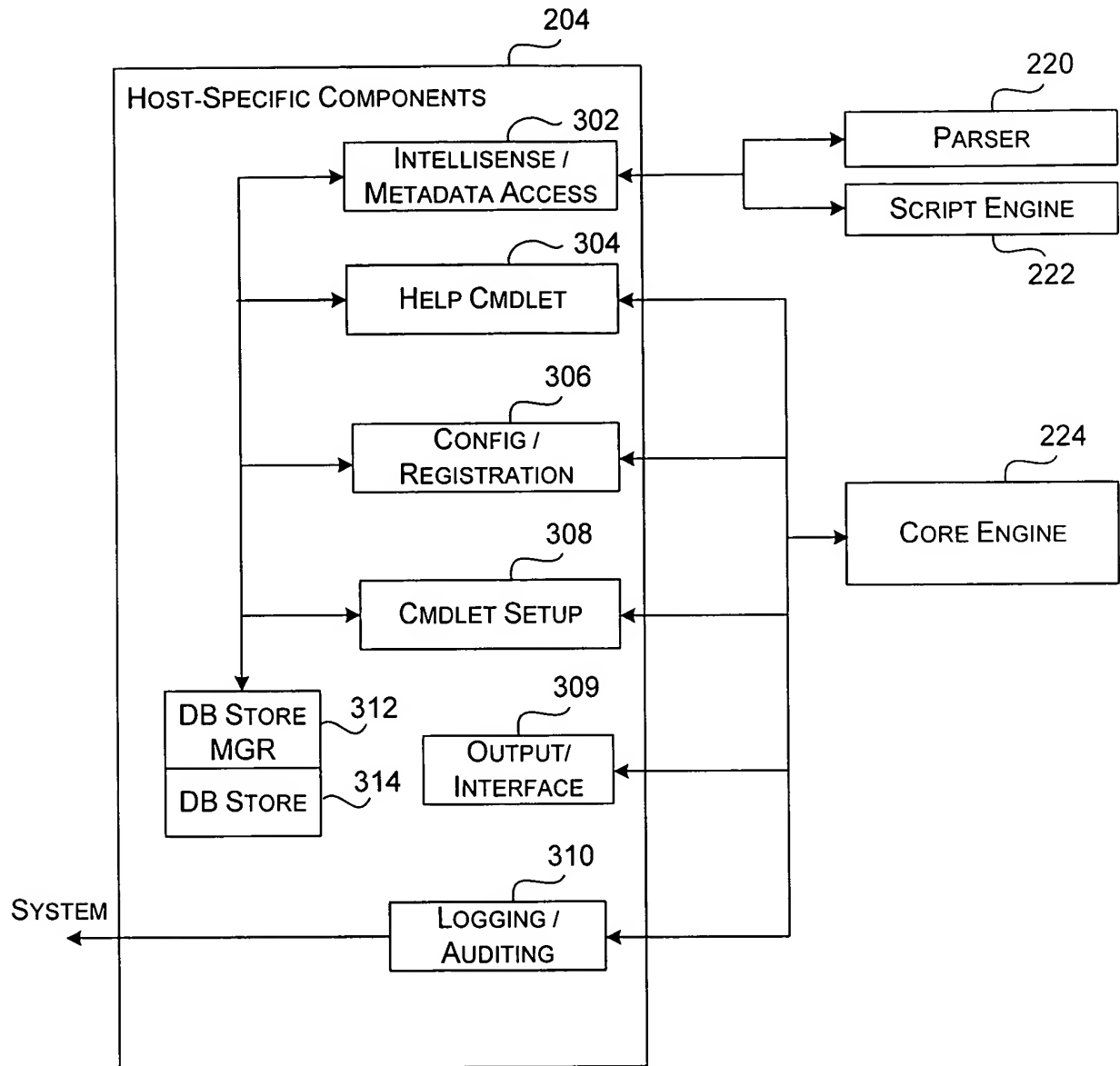


Fig. 3

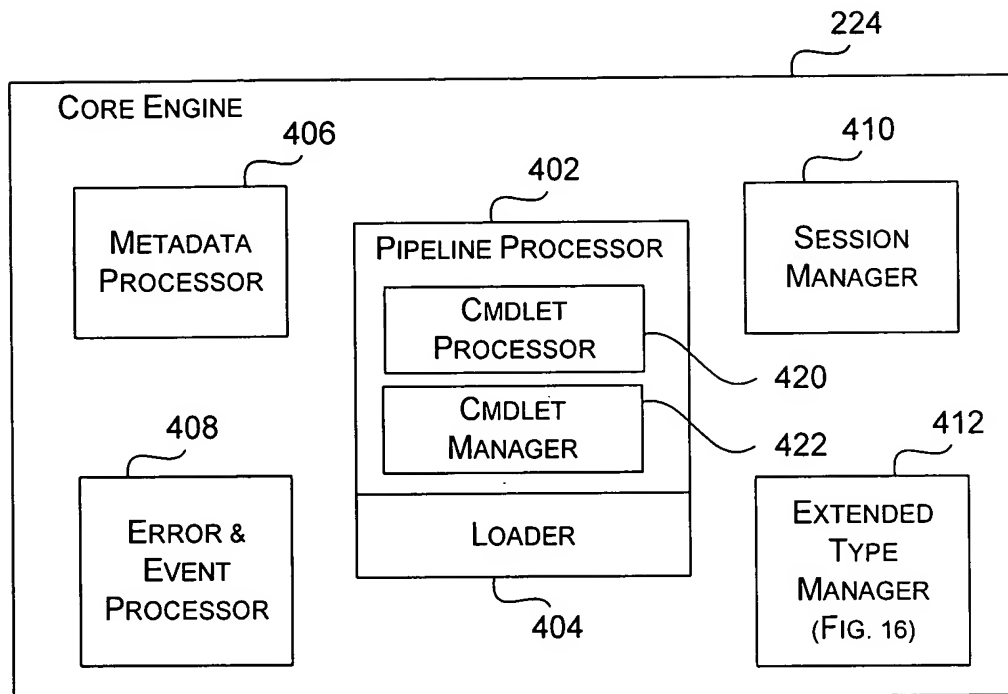


Fig. 4

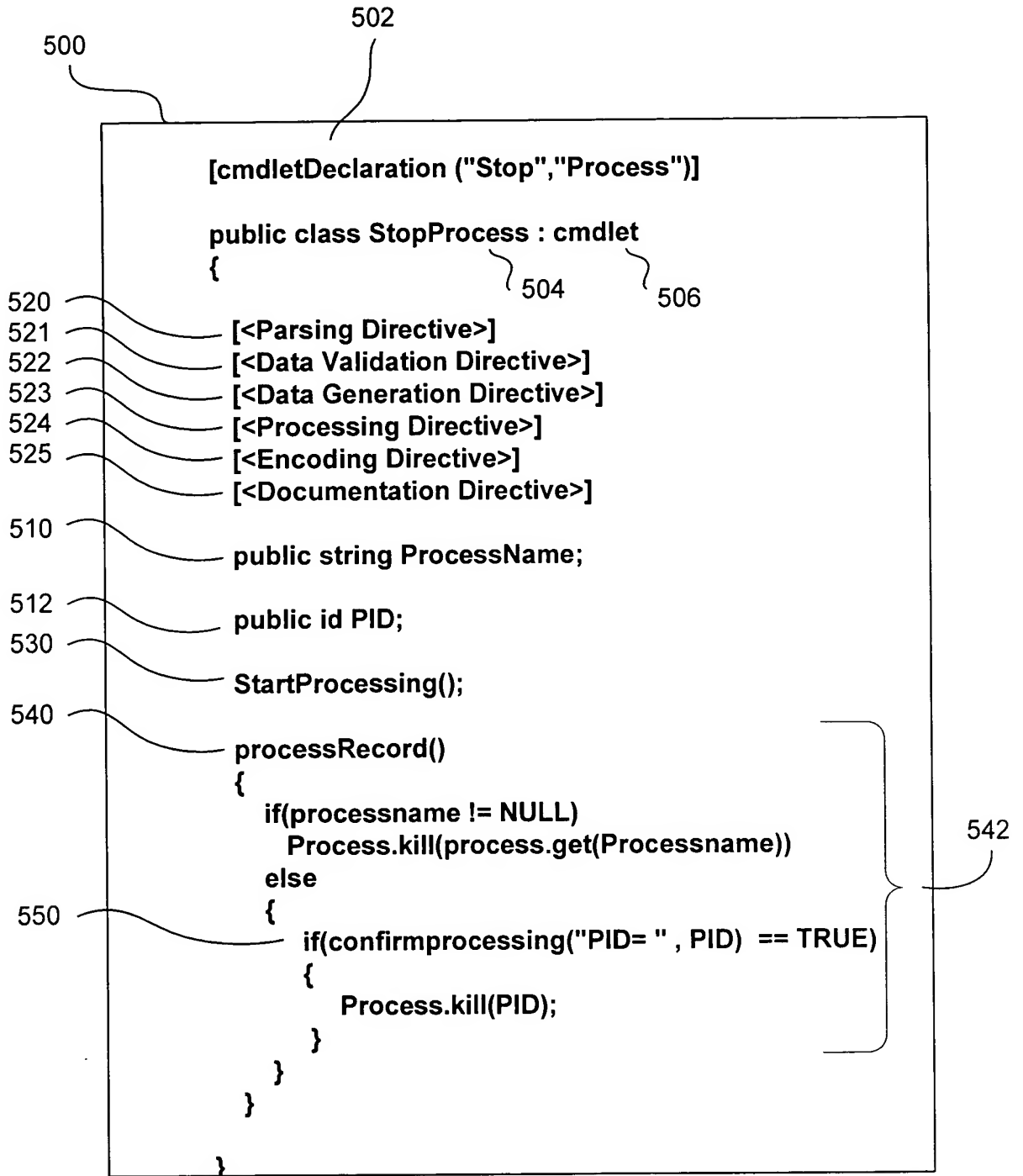


Fig. 5

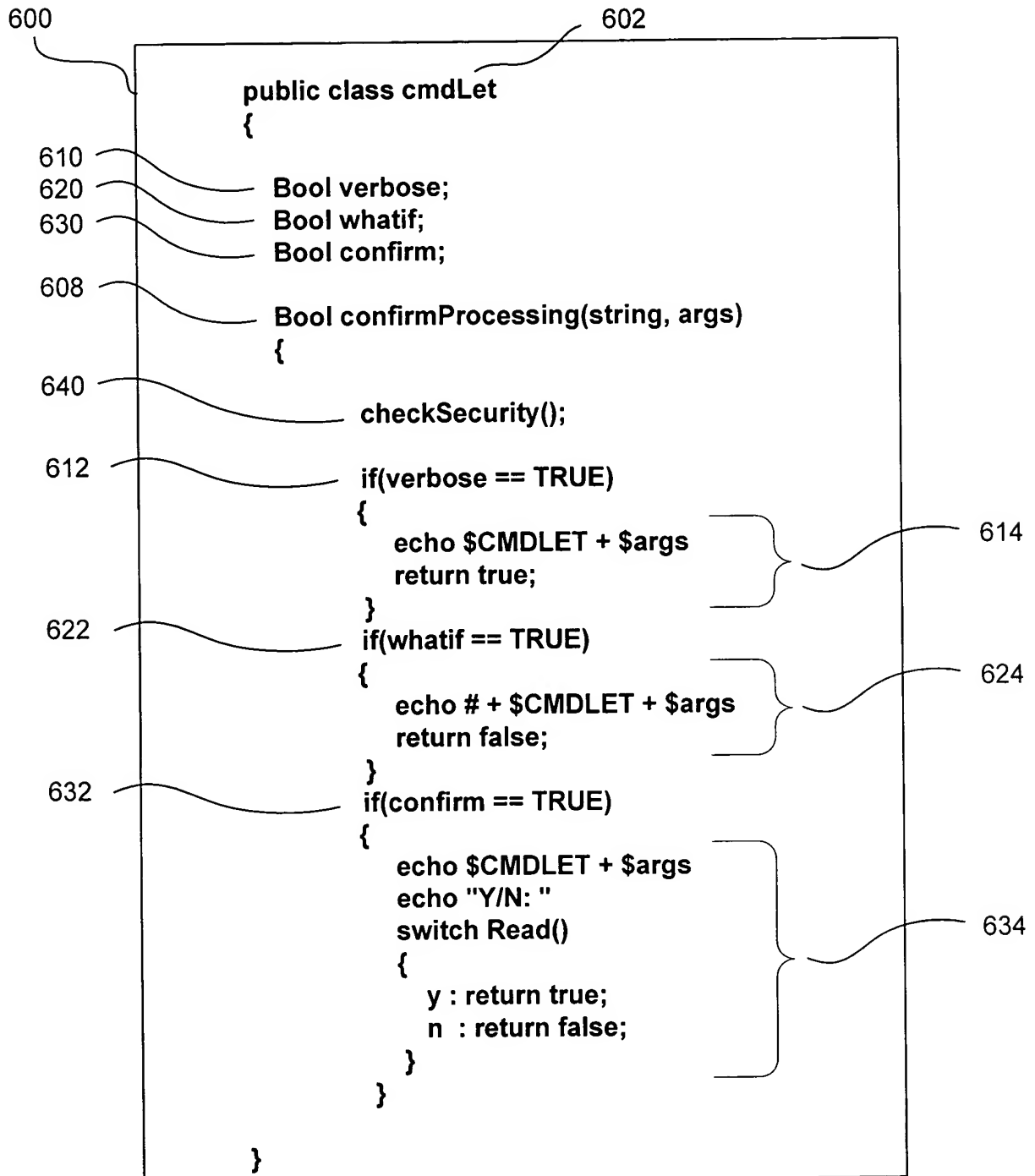


Fig. 6

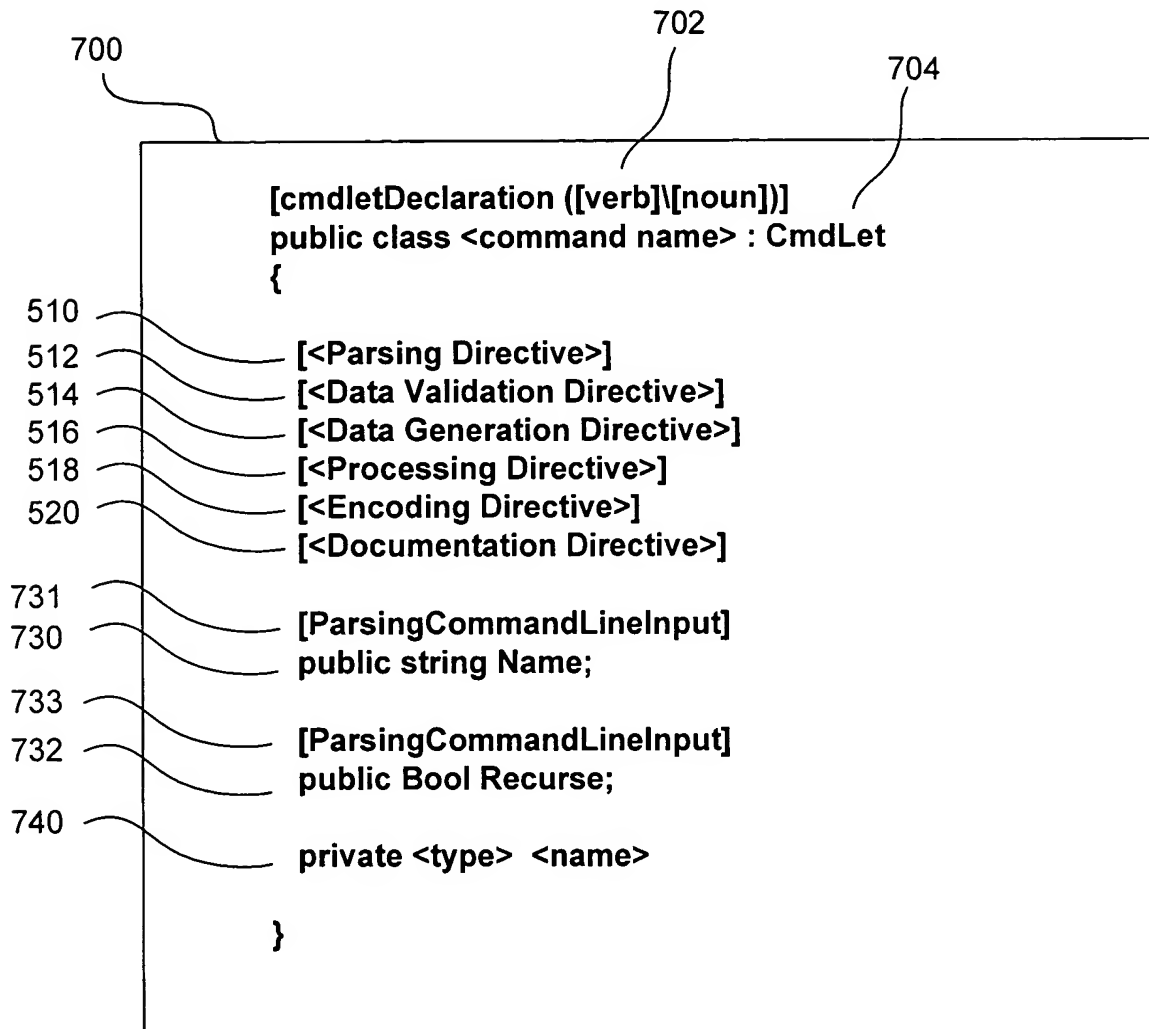


Fig. 7

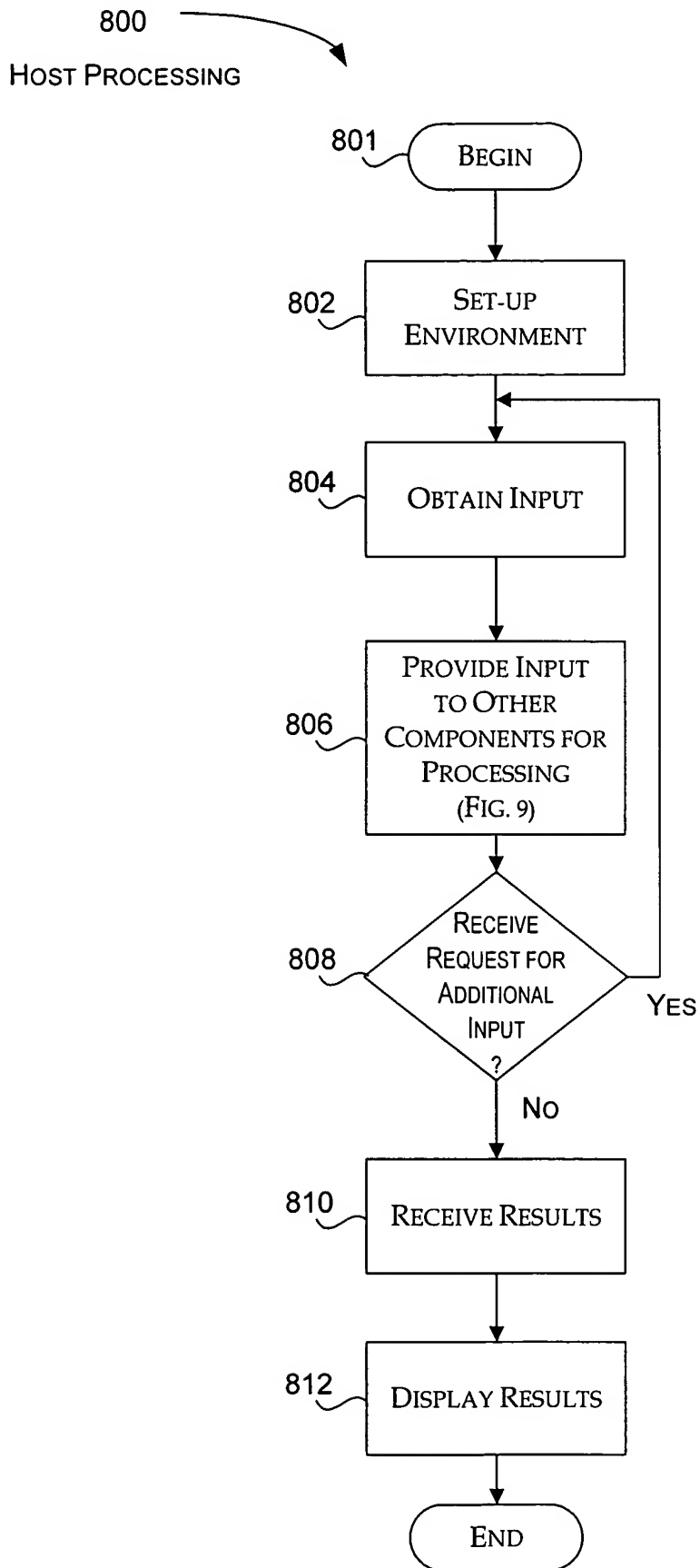


Fig. 8

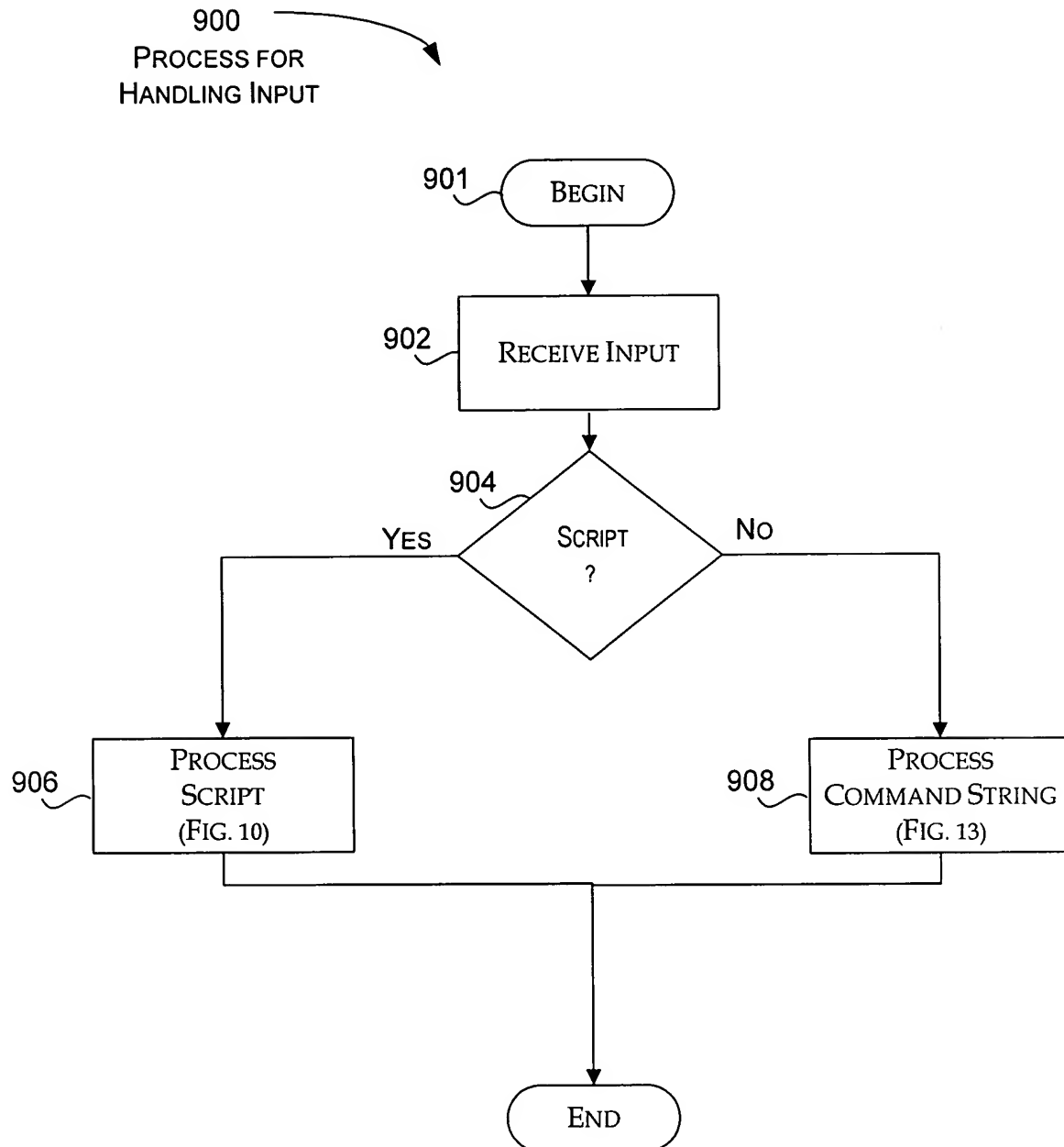


Fig. 9

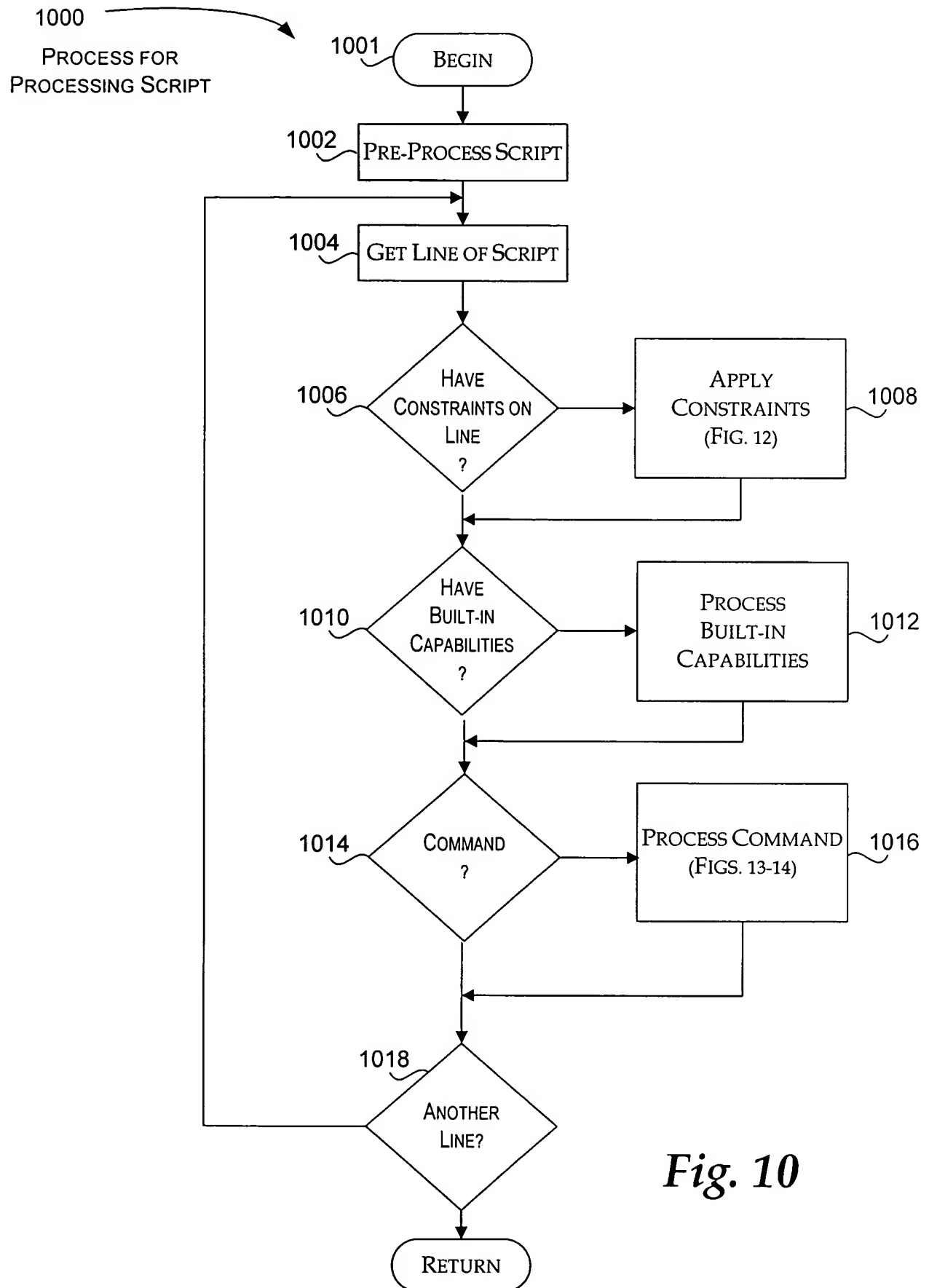


Fig. 10

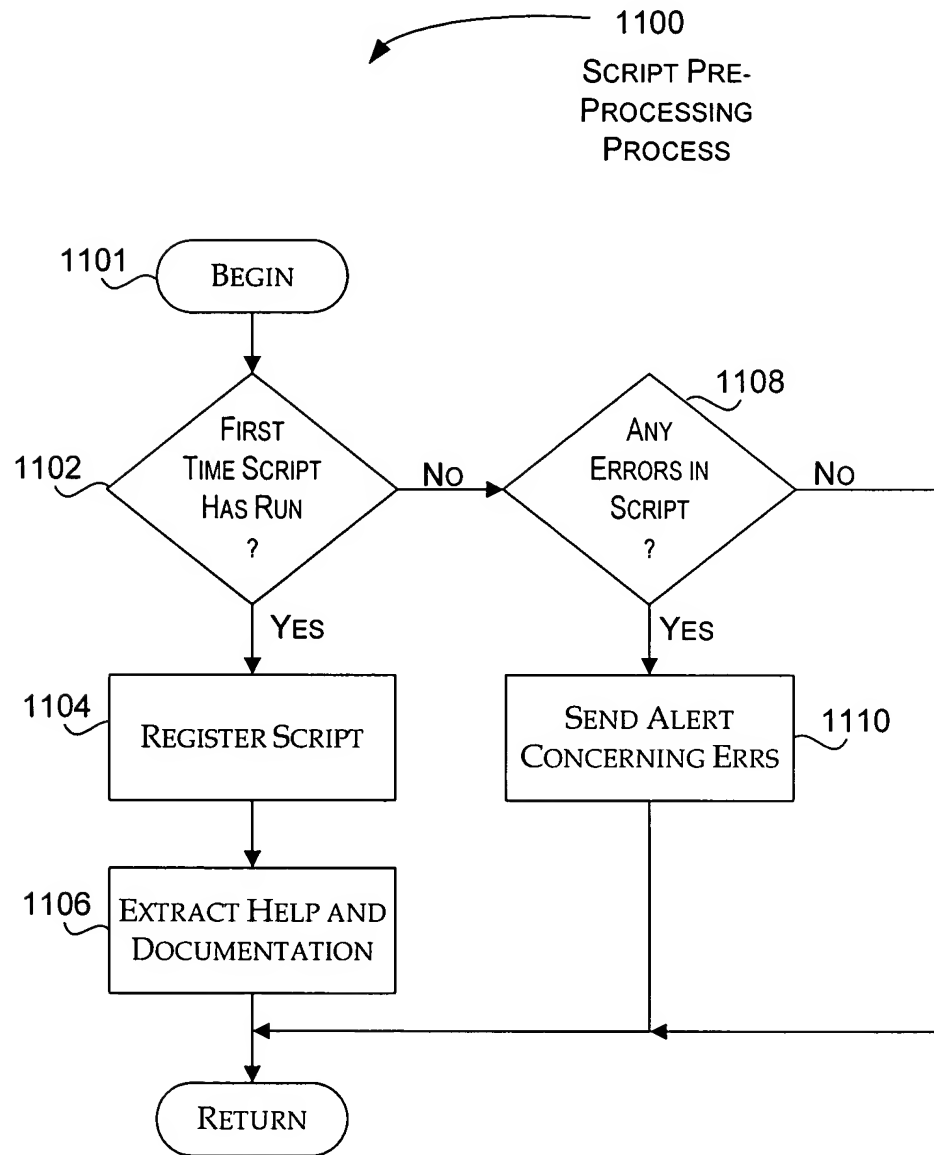


Fig. 11

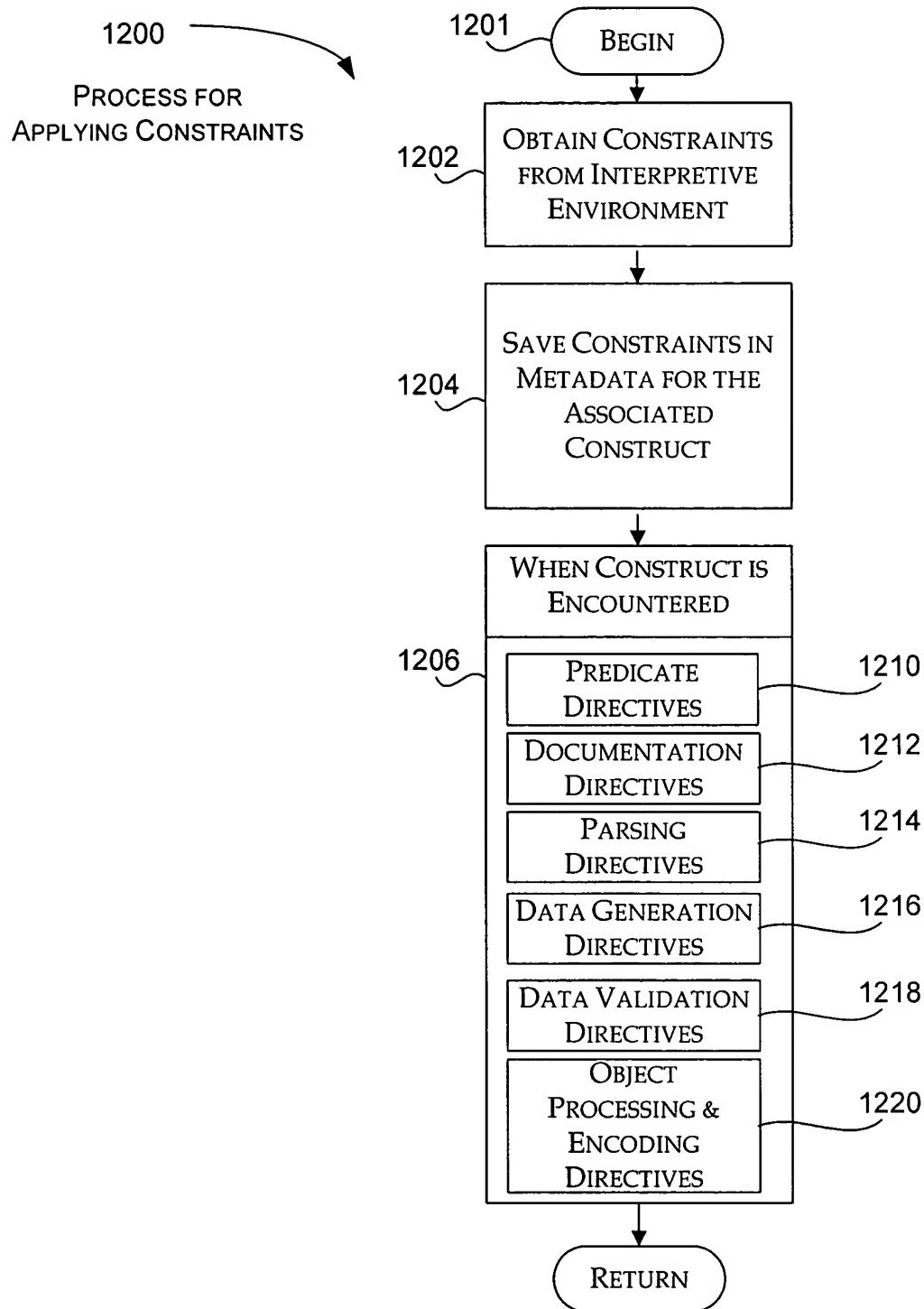


Fig. 12

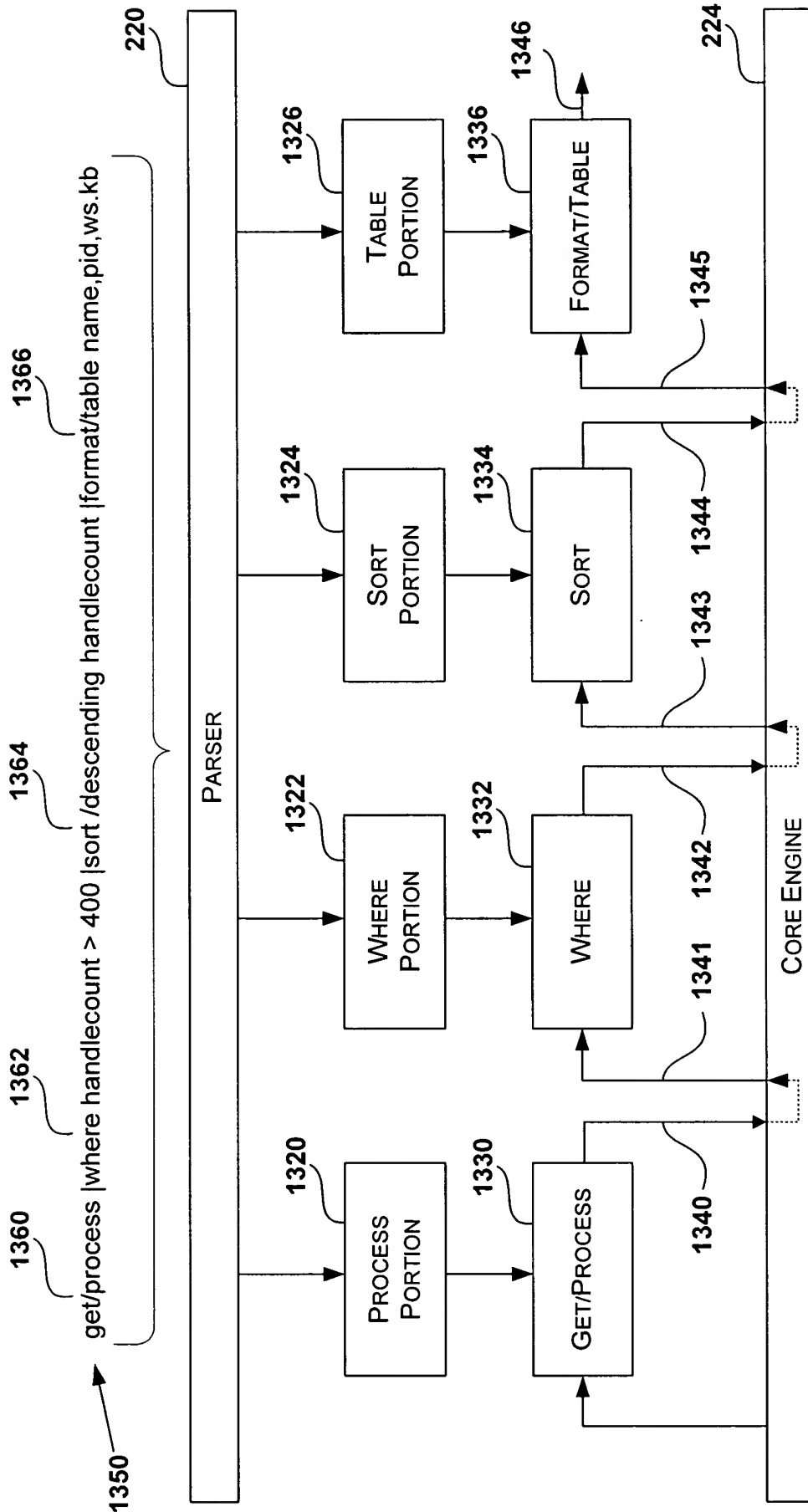


Fig. 13

1300

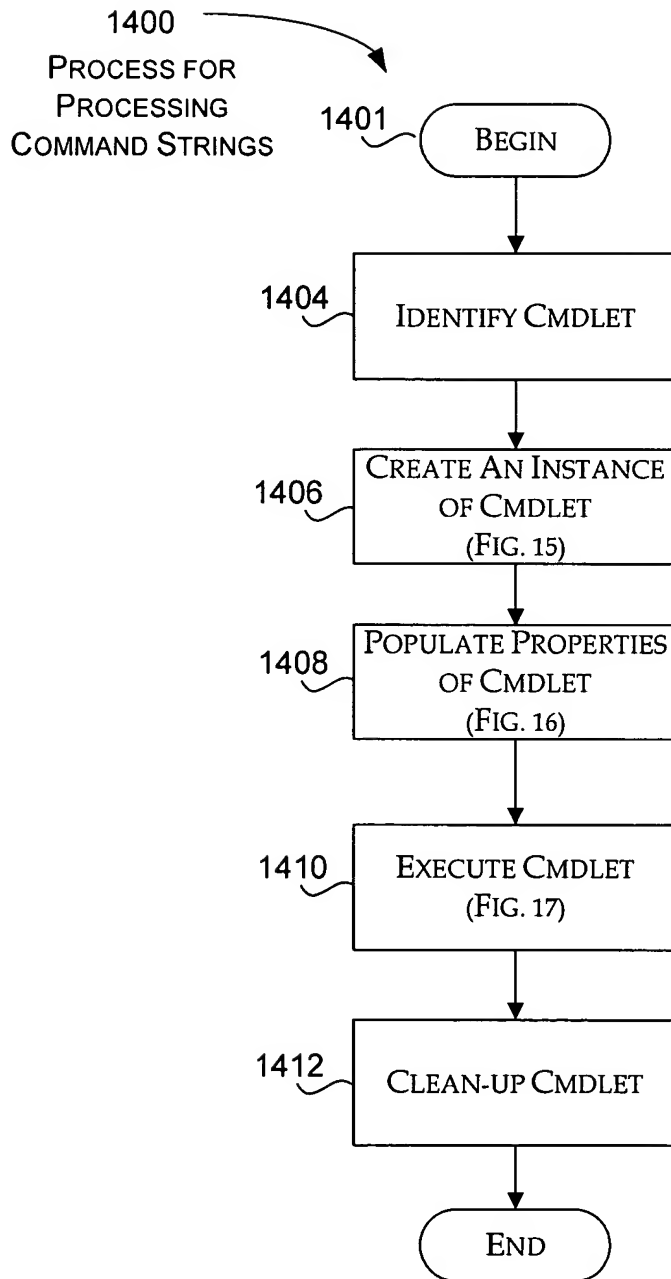


Fig. 14

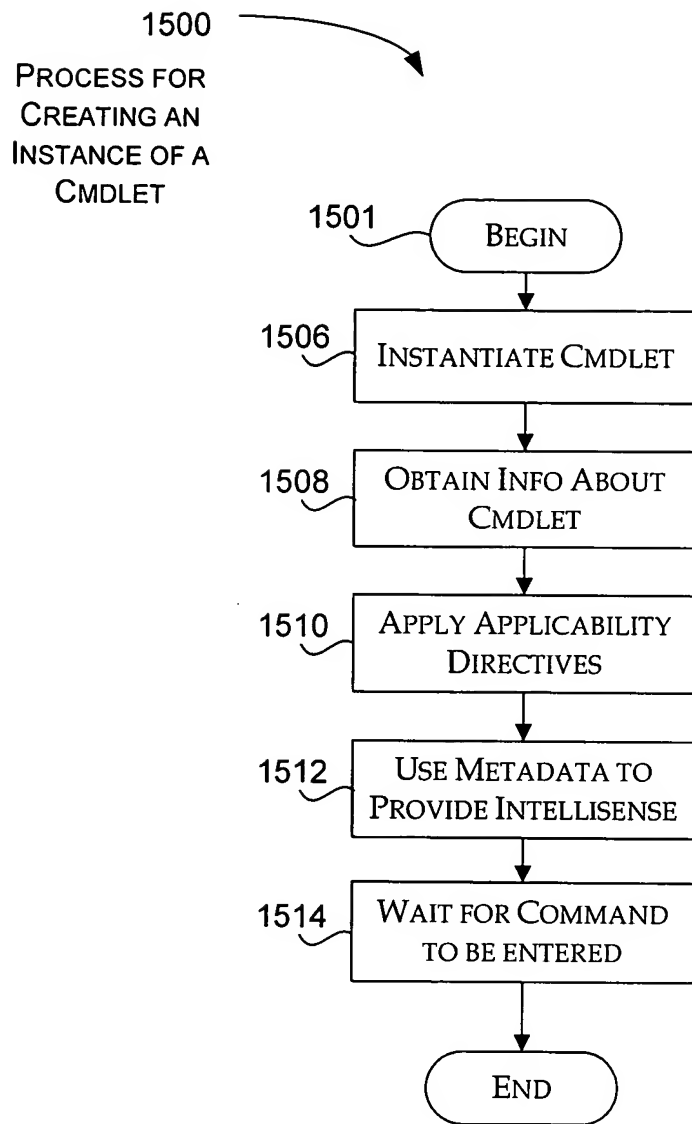


Fig. 15

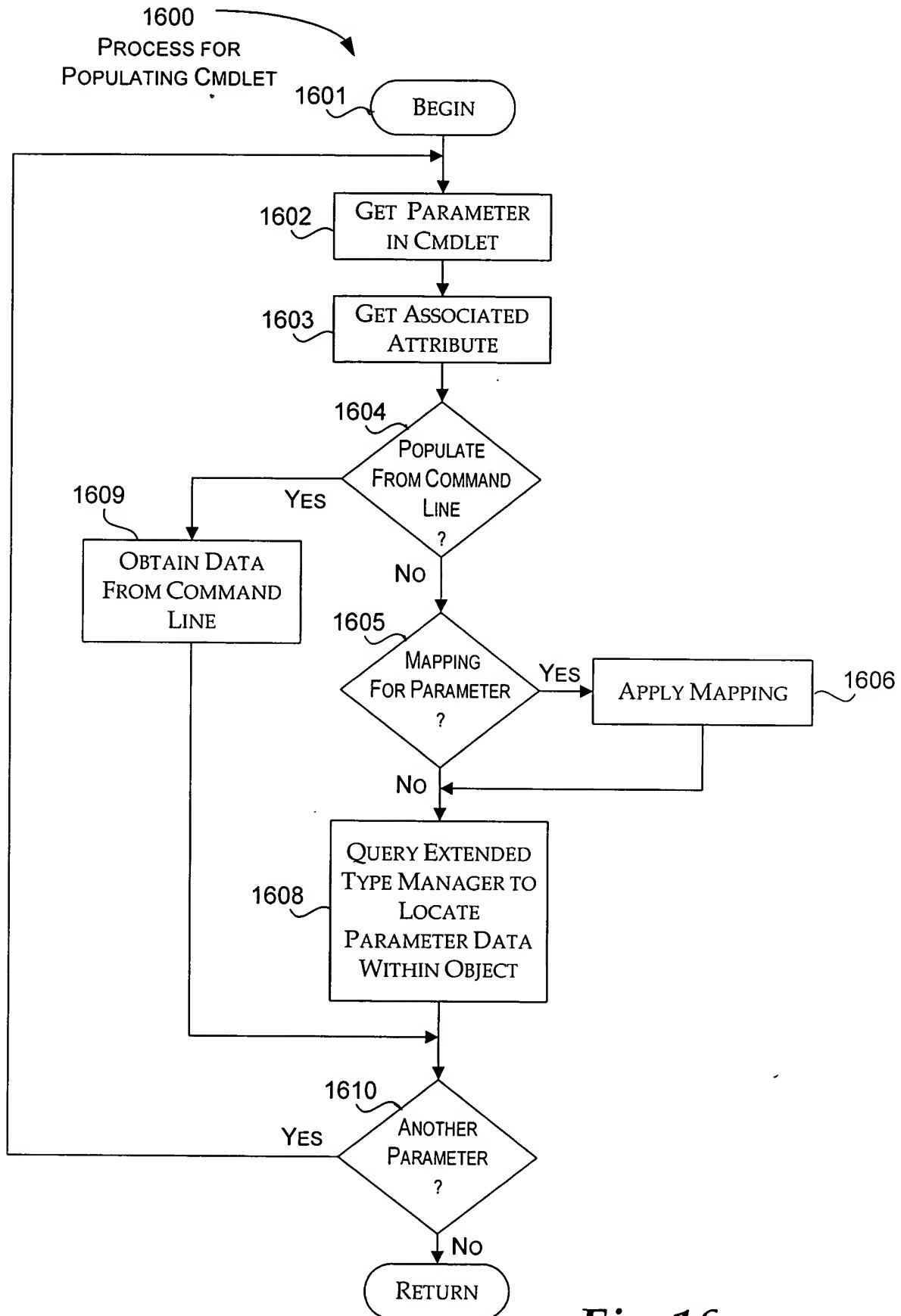


Fig. 16

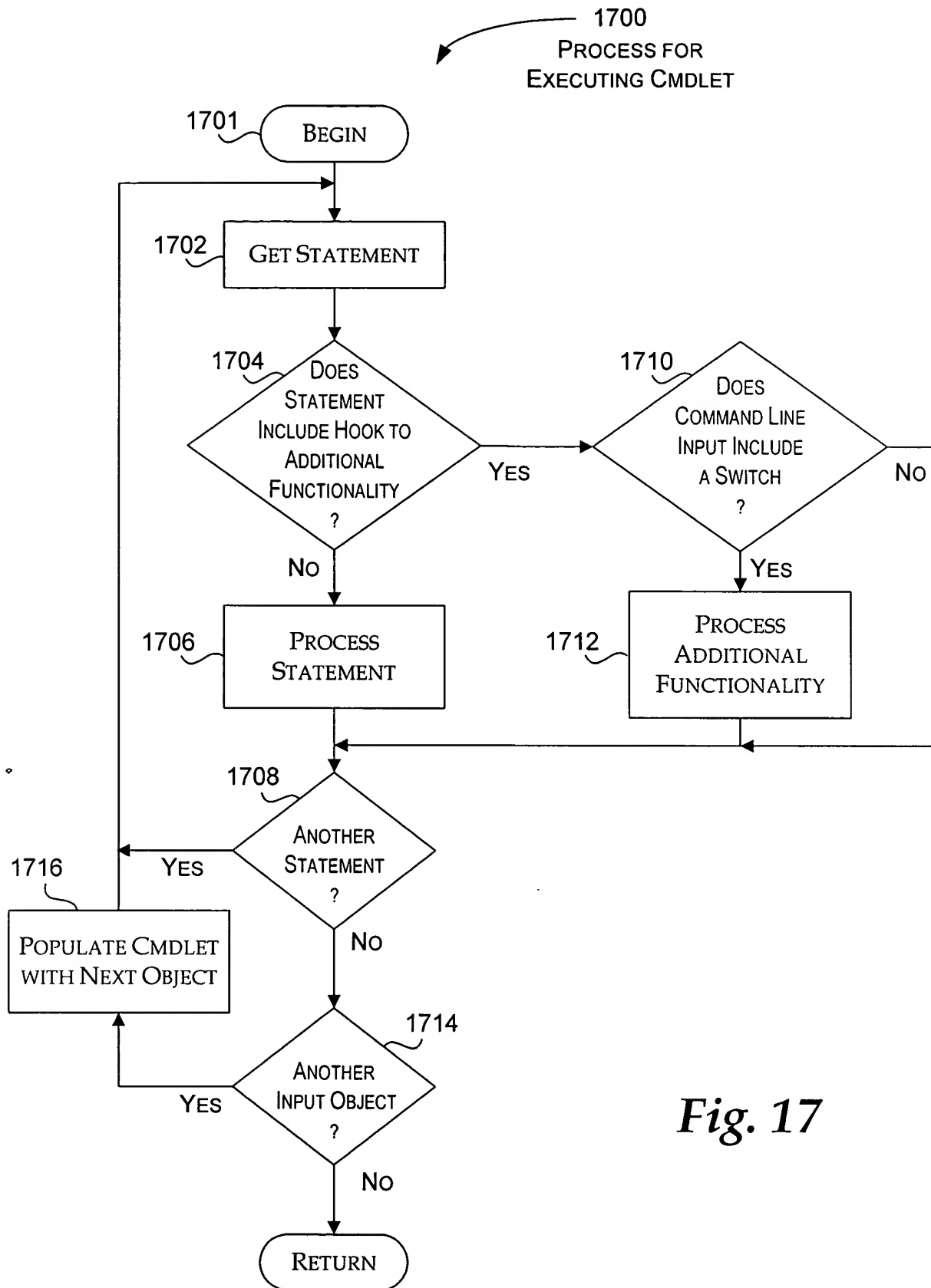
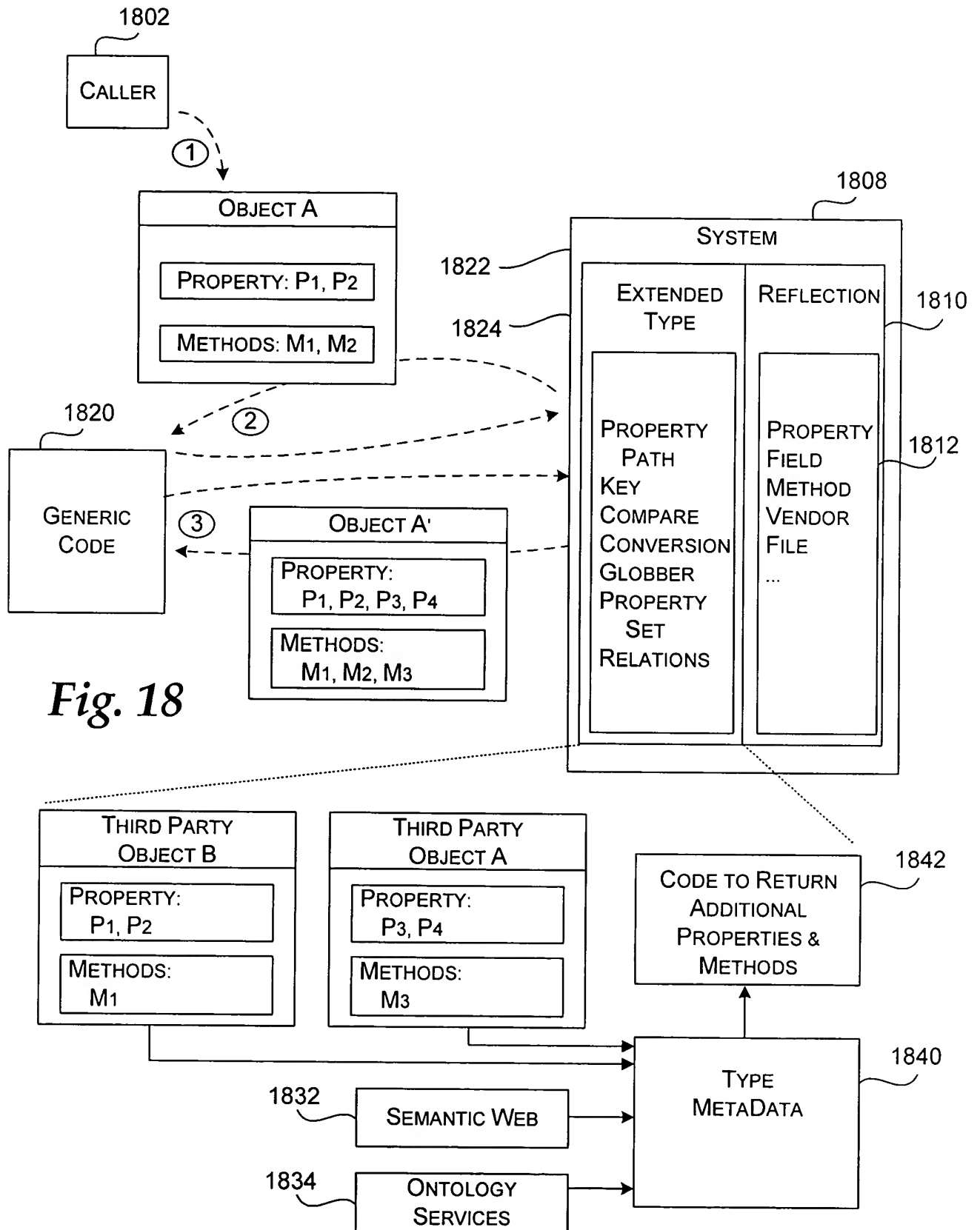


Fig. 17



PIPELINING SEQUENCES FOR DATA DRIVEN OUTPUT

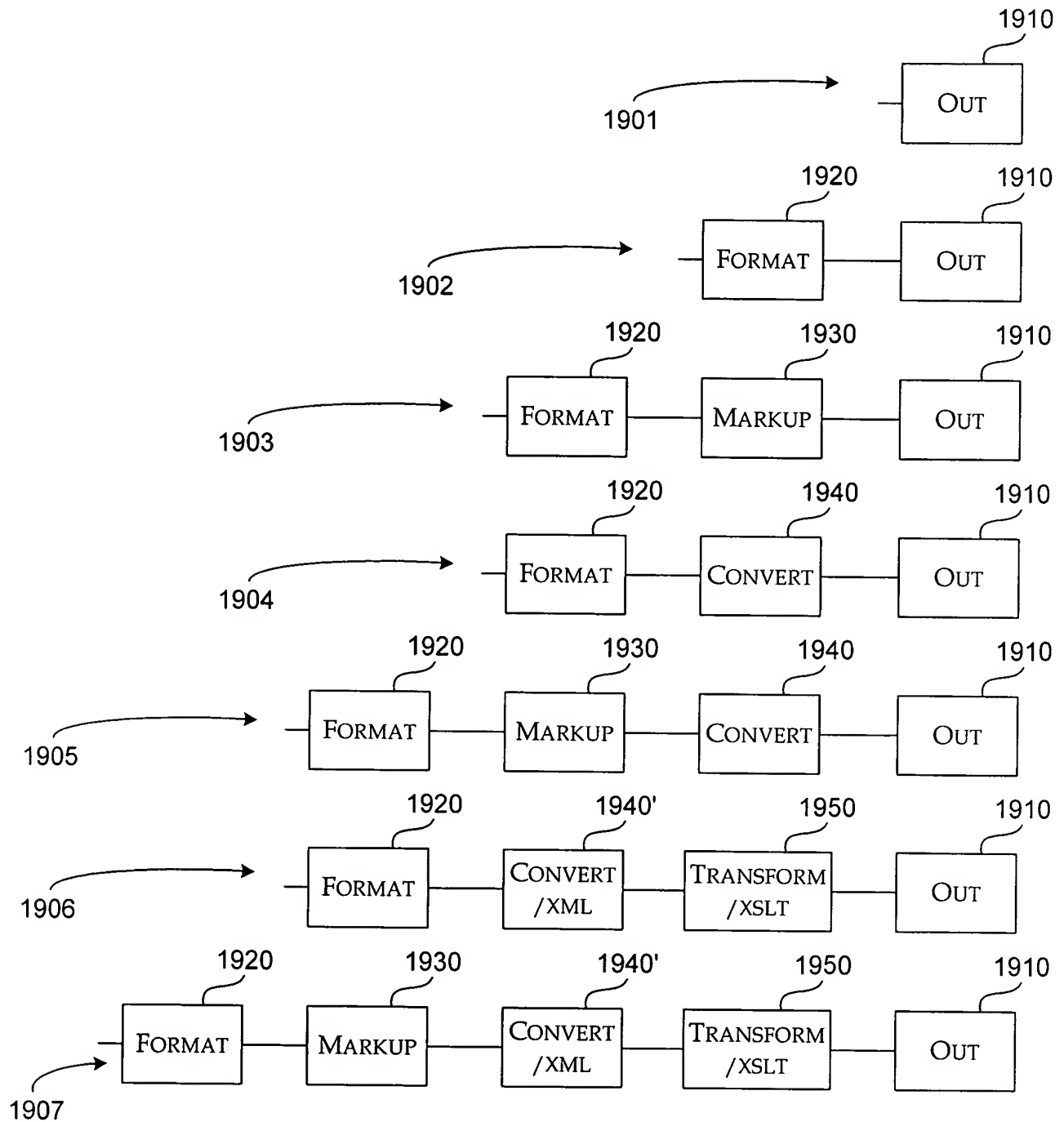


Fig. 19

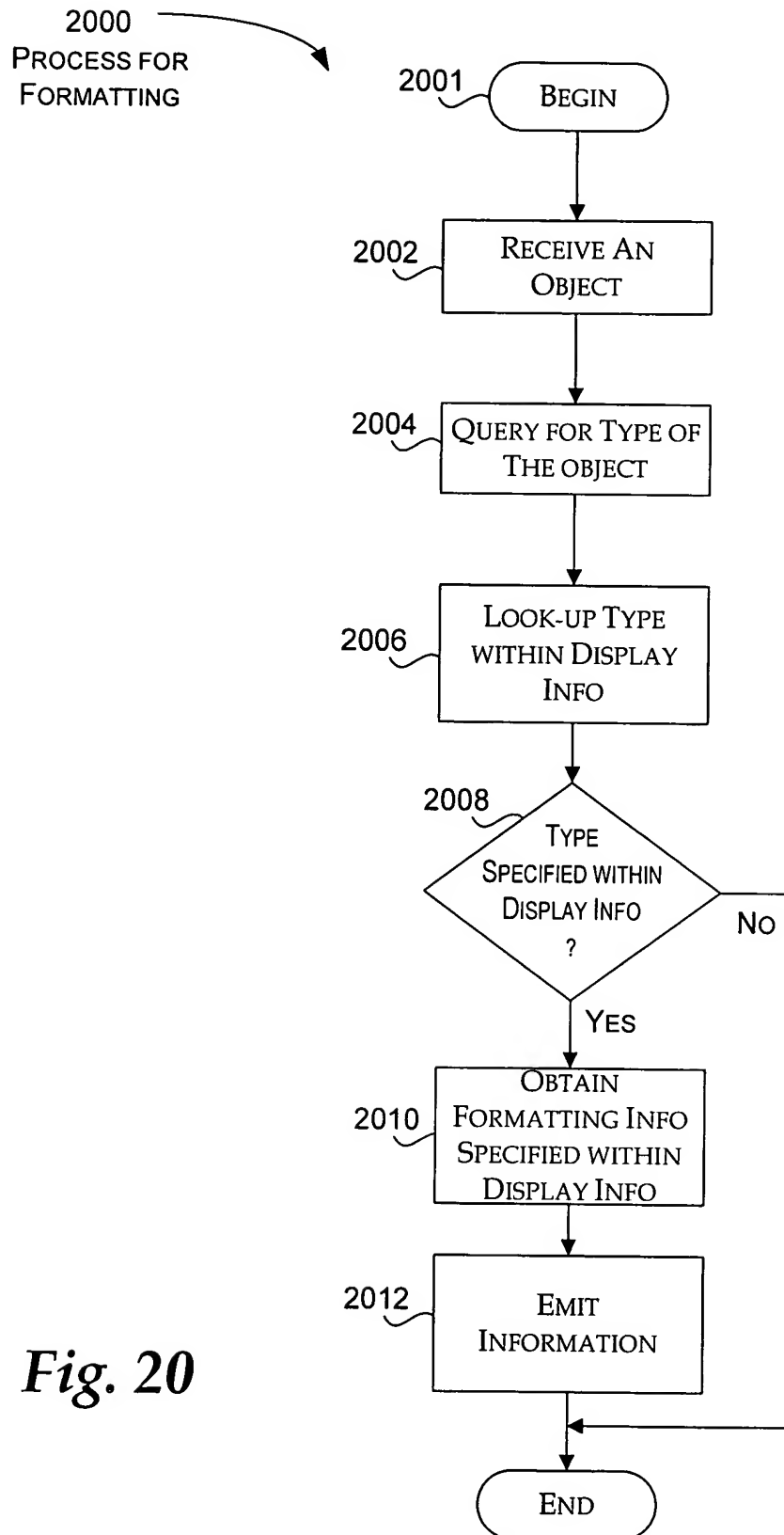



Fig. 20

2100
EXEMPLARY DISPLAY
INFORMATION



```
<DISPLAYINFO>
  <TYPE> DIRECTORYINFO </TYPE>
  <SHAPE> TABLE </SHAPE>
  <COLUMNS>
    <COLUMN>
      <PROPERTYNAME> LASTWRITE TIME </PROPERTYNAME>
    </COLUMN>
    <COLUMN>
      <PROPERTYNAME> SIZE </PROPERTYNAME>
      <ALIGN> LEFT </ALIGN>
      <WIDTH> 10 </WIDTH>
      <FORMATSTRING> D </FORMATSTRING>
      <LABEL> SIZE </LABEL>
    </COLUMN>
  </COLUMNS>
  <HEADER>
    ...
  </HEADER>
  <GROUPBY> PARENTPATH </GROUPBY>
  ...
</DISPLAYINFO>
```

Fig. 21

2200

- 2201 — **format/table** [-properties *propList*] [-exclude *propList*] [-groupby *propName*] [-encoding *charEncodingType*] [-header *headerSpec*] [-footer *footerSpec*] [-pagelayout *pageLayoutSpec*]
- 2202 — **format/list** [-properties *propList*] [-exclude *propList*] [-groupby *propName*] [-encoding *charEncodingType*] [-header *headerSpec*] [-footer *footerSpec*] [-pagelayout *pageLayoutSpec*]
- 2203 — **format/wide** [-property *propName*] [-encoding *charEncodingType*] [-header *headerSpec*] [-footer *footerSpec*] [-pagelayout *pageLayoutSpec*]
- 2204 — **add/markup** [-markupSpec] {*whereClause* => {*markupProp* => *value*, [*markupProp* => *value*, ...] }[, {*whereClause* => {*markupProp* => *value*, [*markupProp* => *value*, ...] } }
| *\$markupSpecVar* | *markupSpecFile*
- 2205 — **convert/text** [-encoding *charEncodingType*]
- 2206 — **convert/sv** -separator *separatorType* [-encoding *charEncodingType*]
- 2207 — **convert/csv** [-encoding *charEncodingType*]
- 2208 — **convert/ADO**
- 2209 — **convert/XML** [-encoding *textEncodingType*]
- 2210 — **convert/html** [-encoding *textEncodingType*]
- 2211 — **transform/XSLT** -XslFile *xslFilename*
- 2212 — **out/console** [-p(age) [*lines*]]
- 2213 — **out/file** -filename *filename* [-overwrite | -append]

Fig. 22

2300

```
[1]$ dir | format/table | out/console
```

Written	Length.kb	Name
6/28/2002 12:52:10 PM	189	sd.exe
11/7/2002 10:59:18 AM	0	sd.ini
6/28/2002 12:52:10 PM	2,633	sd.pdb
6/28/2002 12:52:18 PM	223	sdscc.dll

```
[2]$ dir | format/list brief.set | convert/text | out/console
```

Written : 6/28/2002 12:52:10 PM
Length.kb : 189
Name : sd.exe

Written : 11/7/2002 10:59:18 AM
Length.kb : 0
Name : sd.ini

Written : 6/28/2002 12:52:10 PM
Length.kb : 2633
Name : sd.pdb

```
[27]$ %mymarkupspec = {where length.kb -gt 500 => {applyto => all,  
font.name => arial, font.style => bold, font.color => blue}}
```

```
[28]$ dir i*| format/table | markup %mymarkupspec | out/console
```

Written	Length.kb	Name
=====	=====	=====
9/11/2002 3:11:10 PM	1,020	Interop.Excel.dll
9/11/2002 3:11:10 PM	192	Interop.Microsoft.Office.Core.dll
9/11/2002 3:11:10 PM	120	Interop.SHDocVw.dll
9/11/2002 3:11:09 PM	12	Interop.TASKSCHEDULERLib.dll
9/11/2002 3:11:10 PM	56	Interop.VBIDE.dll

```
[1]$ dir | format/table | convert/csv | out/console
```

```
"Written","Length.kb","Name"  
"6/28/2002 12:52:10 PM","189","sd.exe"  
"11/7/2002 10:59:18 AM","0","sd.ini"  
"6/28/2002 12:52:10 PM","2633","sd.pdb"  
"6/28/2002 12:52:18 PM","223","sdscc.dll"
```

Fig. 23